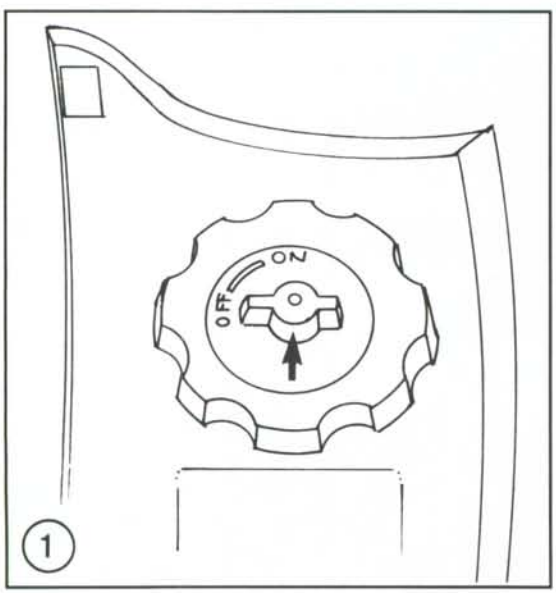
You do not need fancy equipment or complicated test gear to determine whether repairs can be attempted at home. A few simple checks could save a large repair bill and lost time while the vehicle sits in a dealer's service department. On the other hand, be realistic and do not attempt repairs beyond your abilities. Service departments tend to charge heavily for putting together a disassembled engine that may have been abused. Some won't even take on such a job—so use common sense, don't get in over your head.

OPERATING REQUIREMENTS

An engine needs 3 basics to run properly: correct fuel/air mixture, compression and a spark at the right time. If one basic requirement is missing, the engine will not run. Four-stroke engine operating principles are described in Chapter Four under *Engine Principles*. The ignition system is the weakest link of the 3 basics. More problems result from ignition breakdowns than from any other source. Keep that in mind before you begin tampering with carburetor adjustments and the like.

If a vehicle has been sitting for any length of time and refuses to start, check and clean the spark plug. Check the condition of the battery to make sure it has an adequate charge. If these are okay, then look to the gasoline delivery system. This includes the tank, fuel shutoff valve, fuel pump and fuel lines to the carburetors. If your vehicle has a steel tank, rust may have formed in the tank, obstructing fuel flow. Gasoline deposits may have gummed up carburetor jets and air passages. Gasoline tends to lose its potency after standing for long periods. Condensation may contaminate it with water. Drain the old gas and try starting with a fresh tankful.



TROUBLESHOOTING INSTRUMENTS

Chapter One lists the instruments needed and detailed instruction on their use.

STARTING THE ENGINE

When your engine refuses to start, frustration can cause you to forget basic starting principles and procedures. The following outline will guide you through basic starting procedures.

An ignition control system is installed on all Fourtrax 300 models that consists of a DC-CDI unit, ignition coil, neutral indicator light, neutral switch, reverse indicator light and reverse switch. When the ignition switch and the engine stop switch are ON, the ignition will produce a spark for starting only when the transmission is in neutral (the neutral switch is ON) and the engine is cranking.

Always allow the engine to sufficiently warm up before riding off. Do not rev or accelerate hard with a cold engine as this may cause premature engine wear.

Starting a Cold Engine

1. Shift the transmission into NEUTRAL.
2. Turn the fuel valve to ON.
3. Turn the fuel filler cap from the OFF (**Figure 1**) to the ON position.

NOTE

*If the ambient temperature is below 5° F (-15° C) use the starting primer valve on the carburetor float bowl. Press in on the primer valve knob (**Figure 2**) once or twice before pressing the start button.*

4. Move the choke lever (**Figure 3**) to the left.
5. Turn the ignition key to ON.
6. Turn the engine stop switch to the RUN position.

NOTE

*If using the kickstarter instead of the starter motor, raise the decompression lever (**Figure 4**) to the "Decomp" position, then use the kickstarter. After the engine has started, the lever will return to its normal position.*

7. With the throttle completely *closed*, press the start button.

8. When the engine starts, work the throttle slightly to keep it running.

9. Idle the engine approximately for a minute or until the throttle responds cleanly and the choke can be closed.

Starting a Warm or Hot Engine

1. Shift the transmission into NEUTRAL.

2. Turn the fuel valve to ON.

3. Turn the fuel filler cap from the OFF (**Figure 1**) to the ON position.

4. Make sure the choke lever (**Figure 3**) is moved to the right.

5. Turn the ignition key to ON and the engine stop switch to the RUN position.

NOTE

*If using the kickstarter instead of the starter motor, raise the decompression lever (**Figure 4**) to the "Decomp" position, then use the kickstarter. After the engine has started, the lever will return to its normal position.*

6. Open the throttle slightly and press the start button. If the engine does not start, try again with the throttle opened approximately 1/4 to 1/2.

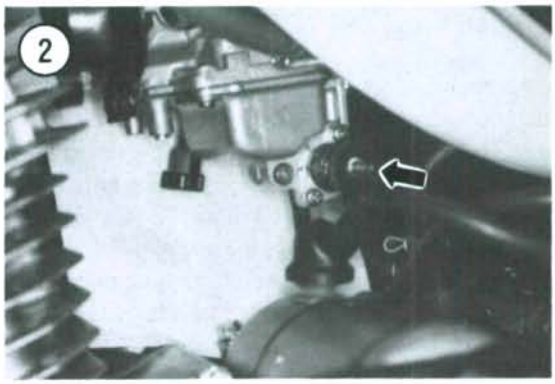
Starting a Flooded Engine

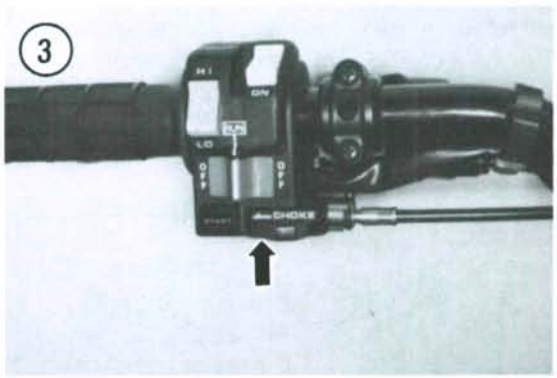
If the engine is flooded, open the throttle all the way and press the start button and turn the engine over until it starts. If the engine refuses to start, check the carburetor overflow hose attached to the fitting at the bottom of the float bowl. If fuel is running out of the hose, the float may be stuck open.

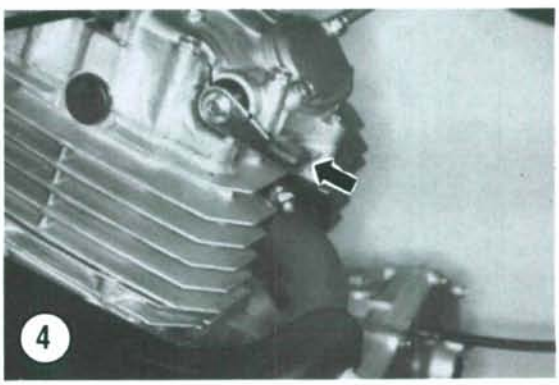
No Start Condition (1990-on Models)

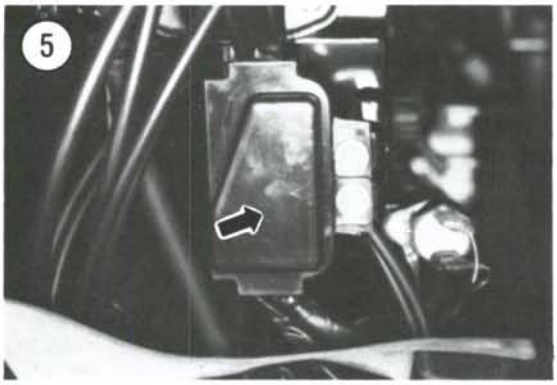
Honda has determined that there may be a problem with these models due to the accidental disconnecting of the 3-pin white electrical connector within the electrical connector box.

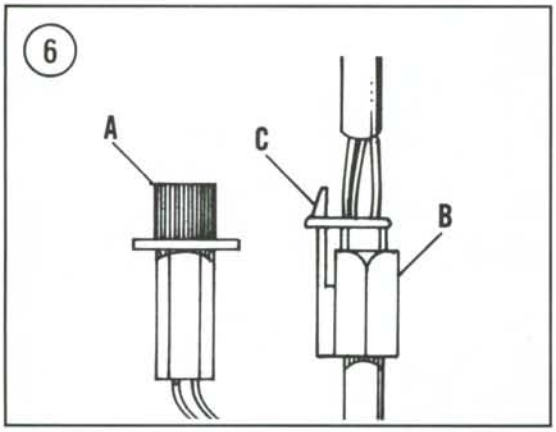
If the engine will not start with the starter motor, check the following symptoms after making sure the battery is fully charged, refer to Chapter Three. Turn the ignition switch ON:

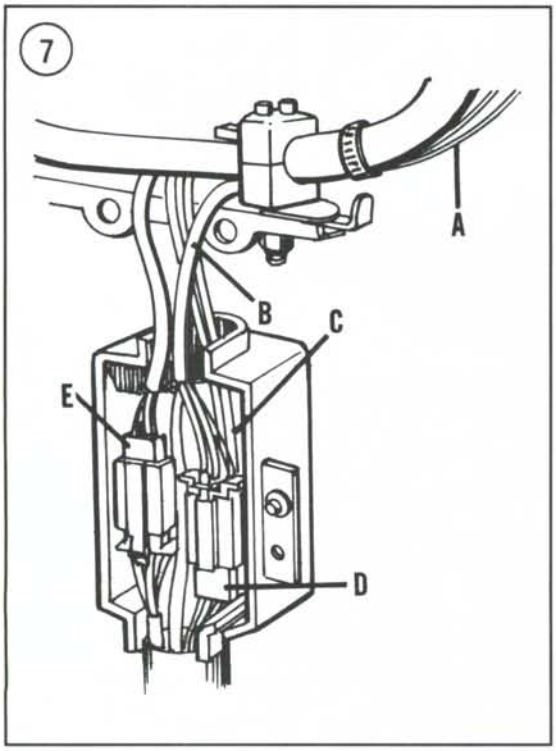












a. Push the START button—the engine will not crank.
b. The headlight and taillight are not illuminated.
c. The engine will start only with the kickstarter.

If all of these conditions are present, the 3-pin white electrical connector within the connector box has probably become disconnected. Perform the following.

1. Remove the front fender as described in Chapter Thirteen.
2. Remove bolts and open the cover (**Figure 5**) on the electrical connector box.
3. Check the routing of the electrical connectors within the connector box. Chances are the black diode (A, **Figure 6**) may have rubbed against the locking tab of the 3-pin white electrical connector (B, **Figure 6**) and disengaged the locking tab (C, **Figure 6**) allowing the connector to separate.
4. To correct the problem, perform the following:
   a. Carefully pull out any slack in the left-hand switch wiring harness on the handlebar (A, **Figure 7**).
   b. Make sure this wiring harness is routed behind the handlebar holder (B, **Figure 7**).
   c. If the harness is routed incorrectly, remove the tie-wrap securing the electrical wires to the left-hand side of the handlebar.
   d. Disconnect the electrical connectors going to the left-hand switch and re-route the wires behind the handlebar holder.
   e. Within the electrical box, move the diode (C, **Figure 7**) to the rear of the connector box.
   f. If not already disconnected, disconnect the 3-pin and 6-pin electrical connectors.

   NOTE
   The locking tab on the 3-pin electrical connector should face UP and the locking tab on the 6-pin electrical connector should face DOWN.

   g. Position the 3-pin (D, **Figure 7**) and the 6-pin (E, **Figure 7**) electrical connectors with their locking tabs facing out toward the front of the connector box.
   h. If disconnected, install the tie-wrap securing the electrical wires to the left-hand side of the handlebar.
5. Move the handlebar from side-to-side to check out the new routing of the wires. There must be enough

slack in the electrical wires to allow easy movement of the handlebar in each direction from stop-to-stop.

6. To prevent the 3-pin electrical connector from accidentally separating again, perform the following:

a. Cut off exactly 2 mm from the end of the carburetor drain tube and use this for an O-ring retainer.
b. Place this O-ring over the locking tab (A, **Figure 8**) on the female end of the connector.
c. Push the male end of the connector into the female making sure the O-ring stays behind the locking tab on the male connector, then lock them together (B, **Figure 8**). This O-ring will exert pressure on the backside of the locking tab hook to ensure that it will stay locked together.

7. Prior to installing the cover on the electrical connector box; start the engine with the starter motor. If the engine starts everything is okay, if it doesn't, solve the problem.

8. Install the cover onto the electrical connector box.

9. Install the front fender as described in Chapter Thirteen.

STARTING DIFFICULTIES

When the vehicle is difficult to start, or won't start at all, it does not help to wear down the battery, overheat the starter or wear out your leg on the kickstarter. Check for obvious problems even before getting out your tools. Go down the following list step-by-step. Do each one. If the vehicle still will not start, refer to the appropriate troubleshooting procedures which follow in this chapter.

1. Turn the fuel filler cap from the OFF (**Figure 1**) to the ON position.

2. Is there fuel in the tank? Remove the filler cap and rock the vehicle from side to side. Listen for fuel sloshing around.

WARNING

Do not use an open flame to check in the tank. A serious explosion is certain to result.

3. If the engine is getting fuel, is the starter motor turning at its normal speed? If the starter motor is operating properly (adequate engine compression), proceed to Step 4. However, if the starter motor is operating unusually fast or slow, perform the *Compression Test* under *Tune-Up* in Chapter Three.

4. Check that the engine stop switch (**Figure 9**) is in the RUN position. If necessary, test the switch as described under *Switches* in Chapter Eight.

5. Make sure the spark plug wire cap (**Figure 10**) is on tight. Push it on and slightly rotate it to clean the electrical connection between the plug and the connector.

6. Is the choke lever in the correct position? Refer to *Starting the Engine* in this chapter.